

IN THE CLAIMS

Please amend the claims as indicated below:

1. (Previously presented) Method for routing data packets in a routing device connecting a first network and a second network, said routing device comprising as separate components: a switch, a bridge function, and a multicast group management module, said method comprising the steps, at said switch, of:

(a) receiving a frame from a device connected to the first network;

(b) forwarding the frame to said bridge function; wherein the bridge function is performed by a means for forwarding a frame based on a destination address of the frame;

(c) checking whether the frame contains a multicast group management message and in the affirmative, creating a new frame comprising as destination address, the destination address of said multicast group management module and as payload at least the multicast management data of the received frame; and

(d) forwarding this new frame to the bridge function.

2. (Previously Presented) Method according to claim 1, wherein the first network is an Ethernet network and wherein the steps (a) to (d) are carried out by an Ethernet switch module.

3. (Previously Presented) Method according to claim 1, further comprising the step of inserting into the new frame an identifier of a port on which the frame was received.

4. (Previously Presented) Method according to claim 1, wherein the multicast group management message is an Internet Group Management Protocol (IGMP) message.

5. (Previously Presented) Method according to claim 1, further comprising the step, by the multicast group management module upon reception of the new frame, of updating its multicast group information.

6. (Currently Amended) Routing device for connecting a first and a second network, said device comprising:

(a) a switch for receiving frames from the first network;

(b) a bridge function for delivering frames to appropriate modules as a function of respective frame destination addresses, said bridge function being connected to the switch;

(c) a multicast group management module for maintaining up to date multicast group information based on frames received on the first network, said multicast group management module being connected to the bridge function for receiving selected frames there from;

wherein the switch is a means for determining whether a received frame comprises a multicast group management message, and in the affirmative, providing a new frame comprising multicast group management information extracted from the received frame, wherein the new frame has a destination address equal to the address of multicast group management module, and for forwarding the new frame to the bridge function and;

said switch, ~~internal~~ said bridge function, and said multicast group management module are separate elements in said routing device.

7. (Previously Presented) Routing device according to claim 6, wherein the switch is an Ethernet switch.

8. (Previously Presented) Routing device according to claims 6, wherein the switch comprises a plurality of ports for receiving frames, and wherein the switch further comprises means for including into the new frame a port identifier of the port on which the received frame containing the multicast group management message arrived.

9. (Previously Presented) Routing device according to claim 6, wherein the multicast group management message is an Internet Group Management Protocol (IGMP) message.

10. (Previously Presented) Switch circuit for use in a device according to claim 6, said circuit comprising multiple input ports for determining, whether a received frame comprises a multicast group management message, and in the affirmative, providing a new frame comprising multicast group management information extracted from the received frame, wherein the new frame has a destination address equal to the address of multicast group management module, and for forwarding the new frame to the bridge function.